

CLAIMS

What is claimed is:

- 1 1. A probe pin array, comprising:
2 a housing having a first surface and a second surface; and
3 a plurality of probe pins extending between said housing first surface and said
4 housing said second surface, wherein said plurality of probe pins extend substantially
5 perpendicularly from said housing second surface and wherein said plurality of probe
6 pins each further include a leading end having a taper between about 10 and 25 degrees.
- 1 2. The probe pin array of claim 1, wherein said leading end taper is about 15
2 degrees.
- 1 3. The probe pin array of claim 1, wherein said plurality of probe pins each
2 comprise steel coated with gold.
- 1 4. The probe pin array of claim 3, wherein said plurality of probe pins each
2 has a diameter of between about 30% and 60% of a diameter of a pin of a pin grid array
3 microelectronic device to be inserted into a socket to be tested by said plurality of probe
4 pins.

1 5. The probe pin array of claim 1, further including an alignment guide
2 having a chamfered surface with an angle of between about 45 and 70 degrees from
3 planar with said housing second surface.

1 6. The probe pin array of claim 5, wherein said chamfered surface has an
2 angle of about 60 degrees from planar with said housing second surface.

1 7. A probe pin array, comprising:
2 a housing having a first surface and a second surface;
3 a plurality of probe pins extending between said housing first surface and said
4 housing said second surface, wherein said plurality of probe pins extend substantially
5 perpendicularly from said housing second surface; and
6 at least one alignment guide extending from said housing second surface having at
7 least one chamfered surface oriented toward said plurality of probe pins.

1 8. The probe pin array of claim 7, wherein said plurality of probe pins each
2 further include a leading end having a taper between about 10 and 25 degrees.

1 9. The probe pin array of claim 8, wherein said leading end taper is about 15
2 degrees.

1 10. The probe pin array of claim 7, wherein said plurality of probe pins each
2 comprise steel coated with gold.

1 11. The probe pin array of claim 10, wherein said plurality of probe pins each
2 has a diameter of between about 30% and 60% of a diameter of a pin of a pin grid array
3 microelectronic device to be inserted into a socket to be tested by said plurality of probe
4 pins.

1 12. The probe pin array of claim 7, wherein said alignment guide chamfered
2 surface has an angle of between about 45 and 70 degrees from planar with said housing
3 second surface.

1 13. The probe pin array of claim 12, wherein said chamfered surface has an
2 angle of about 60 degrees from planar with said housing second surface.

1 14. A probe pin array, comprising:
2 a housing having a first surface and a second surface;
3 a carrier having a first surface and a second surface, wherein said carrier second
4 surface abuts said housing first surface;
5 a plurality of probe pins extending between said carrier first surface and said
6 housing said second surface and extending between said housing first surface and said

7 housing said second surface, wherein said plurality of probe pins extend substantially
8 perpendicularly from said housing second surface; and
9 at least one alignment guide extending from said housing second surface having at
10 least one chamfered surface oriented toward said plurality of probe pins.

1 15. The probe pin array of claim 14, wherein said plurality of probe pins each
2 further include a leading end having a taper between about 10 and 25 degrees.

1 16. The probe pin array of claim 15, wherein said leading end taper is about
2 15 degrees.

1 17. The probe pin array of claim 14, wherein said plurality of probe pins each
2 comprise steel coated with gold.

1 18. The probe pin array of claim 17, wherein said plurality of probe pins each
2 has a diameter of between about 30% and 60% of a diameter of a pin of a pin grid array
3 microelectronic device to be inserted into a socket to be tested by said plurality of probe
4 pins.

1 19. The probe pin array of claim 14, wherein said alignment guide chamfered
2 surface has an angle of between about 45 and 70 degrees from planar with said housing
3 second surface.

- 1 20. The probe pin array of claim 13, wherein said chamfered surface has an
2 angle of about 60 degrees from planar with said housing second surface.